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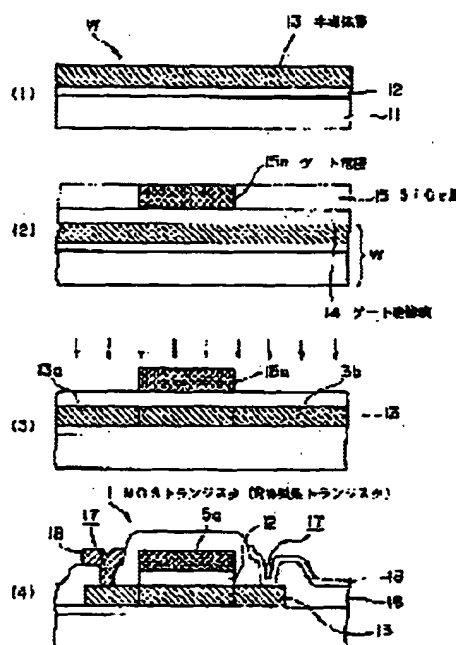
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(54) MANUFACTURE OF SEMICONDUCTOR DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a field effect transistor where a threshold is controlled satisfactorily by means of the composition of a SiGe layer and to promote microminiaturization of an insulating gate-type field effect transistor using a SiGe gate.

SOLUTION: A gate insulating film 14 is formed by thermal oxidation in an oxidizing gas atmosphere on a semiconductor layer 13, and a SiGe layer 15 is formed on the gate insulating film 14 in an evacuated atmosphere where oxidizing gas is removed by a sputtering method. The SiGe layer 15 is patterned, and a gate electrode 15a is formed. A source 13a and a drain 13b are formed and the MOS transistor (insulating gate-type field effect transistor) 1 is formed. Thus, controllability of the composition ratio of Si and Ge in the SiGe layer 15 is improved, by forming the SiGe layer 15 constituting the gate electrode 15a by the sputtering method.



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